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# Choosing the Right Steps: Management Decisions of Dance Businesses

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**Honors Research 2015**

# Choosing the Right Steps:

**Management Decisions of Dance Businesses**

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## **Abstract**

Baumol and Bowen, two fundamental performing arts researchers of the 1960's, found that dancers, defined as those that perform dance on stage regularly with a company, have some of the lowest human capital returns, ranking lower than actors and musicians. Today, the average dancer has a median pay of \$15.87, which is less than the \$16.21 average hourly wage of a paid intern. Additionally, only six percent of public schools offer dance as a part of their K-12 curriculum. Leaders in this field argue that this situation poses a serious threat to the transmission of arts culture in our country and will have long-term negative impacts. Children receive little to no dance education in public schooling, leaving private dance education organizations, run by dance professionals, as the only viable option left for the inclusion of a dance curriculum in childhood education. Using a sample of 100 privately owned studios in the tri-state area, business decisions will be analyzed to uncover the impact these variables have on enrollment. Information from this analysis can then be used to influence public policy decisions to improve the emphasis of the arts in our culture.

## Introduction

Performing artists have experienced over the years of exhausting working conditions, high professional expenses, frequent unemployment, unfavorable workplace arrangements, lack of fringe benefits, and, above all, a meagre income, adding up to ‘what most of us would consider a nightmare world were we suddenly plunged into it’, according to Baumol and Bowen (1966). Baumol and Bowen published one of the first studies combining empirical data and theoretical hypotheses about the performing arts economy. Baumol is an economic researcher with a main focus in market structure and pricing; today he is an emeritus professor of economics and academic director at New York University’s School of Business. Bowen initially specialized in labor economics at the time of the 1966 study, and later became the president of Princeton University where he also served as a Professor of Economics and Public Affairs. Together their study of problems common to theatre, opera, music and dance highlighted that dancers specifically have some of the lowest returns, ranking lower than actors and musicians. Today, the average dancer has a median pay of \$15.87, which is less than the \$16.21 hourly wage of a young, paid intern<sup>1</sup>. Despite its poor working conditions and wages, Baumol and Bowen’s study suggests that dance is considered by many to be a well-respected facet of the performing arts. The National Endowment for the Arts, a government entity implemented for performing arts funding, granted over \$12 million to dance organizations just in the year 2000. This funding is provided to dance administrators so they can enhance leadership within the organizations, as well as increase the audience sizes (Sciantarelli, 2009).

Despite government funding, workers in this field continue to earn low wages. However, low returns is only part of the problem. Only six percent of schools offer dance as a part of their K-12 curriculum<sup>2</sup>. Kotler (1997), a performing arts marketing specialist, argues that this situation

poses a threat to the future of the artistic culture, and will have a long-term negative impact on the number of people interested in attending the performing arts. It creates special challenges for arts organizations both in attracting and satisfying audiences and in taking on the role of educating current and potential future audiences.

With evidence of low returns and scarce industry awareness, one might wonder if it is possible to make a living in the dance field. Many dance professionals start private dance education organizations as an after-school alternative for students, as well as a means of financial income (Smith 2013). Kotler encourages more dance education for all ages because he says it will stimulate the demand for the performing arts industry and increase the interest in ticket sales. Of all dance education organizations, 98.9% of dance schools are privately owned studios with only one location that serves the local community, is important that dance studio owners understand the operations of individual dance businesses, or the microeconomic side, rather than statistics on the entire dance industry, or the macroeconomic side (Smith 2013). Differentiating between the two combined with a more detailed understanding of individual dance schools will aid in the accumulation of the most students as possible. In this study, a sample of 100 privately owned studios in the tri-state area, made up of Pennsylvania, Delaware and New Jersey, will be utilized to determine how different business decisions influence enrollment. Rather than finding the general statistics on the dance industry as a whole, this study will be specific to individual dance organizations and the correct steps to gaining a large clientele. A larger clientele of students with dance education can create more promising future audiences for performing arts performances. This has the potential to foster both a larger demand for the dance industry and a thriving business for studio owners which is ultimately the goal of this study.

## **Literature Review**

The dance industry is vast and encompasses many different types of outlets. While private dance schools that provide dance education and performance opportunities for children and young adults are a main part of the dance community, there are many other facets included. Private dance education has an impact on the performing arts at large. Posey (2002) suggests that professional dancers and instructors most likely gained their first dance experience in a dance school at a young age. Therefore professional dance companies, after school programs, Broadway theatre productions and similar spectacles are all subcategories of the dance field. With an umbrella so wide, it is essential to cover some of the basic fundamental questions that come up along the way. These include: history of financial problems within the industry, the similarities and differences between dance education and dance performance, the distinction between profit and nonprofit organizations, typical expenses and revenues for multiple performing arts subcategories, and the business decisions that attract the largest clientele. Each of these sections will provide a unique insight and clarity into the dance industry.

### *History of Problems within the Industry*

Kotler (1997) suggests that the less than perfect conditions of the dance field all began with President John Adams who felt that a focus in performing arts in education would corrupt society. Adams thought that if education included the performing arts regularly, Americans would become acclimated to a luxury service when they should be preoccupied with practical necessities that assisted in forming a new country. It was not until two hundred years later that the government acted otherwise and arts education became a topic of debate. In the early 2000's, about twenty percent of public schools had a program specifically for dance education; today it is down to three percent<sup>3</sup> due to constraints in arts education budgets. Lacking arts education is only one of the problems faced in the performing arts. Baumol and Bowen's work (1966)

analyzed changes in price and costs of production over a period of time and constructed a model of fluctuating growth that compared the performing arts sector with the rest of the economy using aggregate production functions in a macroeconomic model. These researchers found that the income of a dancer in 1959 was \$3,483 compared to the \$15,013 of a physician. This translates into a 2015 salary of \$28,094.05 for dancers, compared to a \$121,095.58 of a physician<sup>4</sup>. They also concluded that in relative terms—accounting for inflation and comparison to other occupations—performers have grown poorer over the years in terms of salary. One of the reasons for this is that the real cost of performances is always rising; this can sometimes be offset by producing more shows at the same ticket rates. However, Baumol and Bowen found that although selling out and reaching capacity in a performance is desired, it is not a financial fix for the arts. This is especially true when many performance companies in their model were forced to reduce ticket prices. Ticket price reduction is seemingly the only answer when audiences demand lower costs, and will be satisfied with competitors among the arts such as music, theatre and visual arts.

To determine whether or not Baumol and Bowen's work was still applicable thirty years later, Throsby's research (1996) found that artist and dancer incomes were still relatively low and the income scales of the 1960's researchers continue to be statistically the same in more recent years. This means that dancers are still earning much less than other performing artists such as musicians and actors. Towse (2010) also references Baumol and Bowen's argument on the integrated labor market. In 1966, the wages over all jobs in the economy as a whole rose due to increase in productivity. The arts are unable to benefit from productivity wage improvements because classes and shows take the same amount of time regardless of how the teacher or dancer performs. Regardless of skill level or development, the fixed cost for the service remains

constant. The performing arts are labor intensive and workers are unable to increase their wages with productivity. These factors result in rising prices of ticket sales. In fact, ticket prices increase at a higher rate than the prices of other goods and incomes. This dramatically decreased the demand for the performing arts. Forty years after Baumol and Bowen's research in 1966, and ten years after Throsby's, Towse (2010) found that artist incomes are still lower than the average worker and are still unable to rise with productivity at the same rate as other workers, meaning that Baumol and Bowen's work was still applicable even forty years later. He also found that Baumol and Bowen measure the amount of performances in their model rather than the size of the audience. Total audience is a more accurate measure of demand for research purposes because it measures the individual ticket sales and quantity demanded rather than quantity supplied. Quantity demanded gauges the amount of people that are interested in the performing arts, and provides results that are more useful for research specific to gaining a clientele.

In addition to low wages, the dance community has seen fluctuation in demand and revenues, which creates heavy instability in such a labor intensive industry. Baumol and Bowen (1966), Throsby (1996), Kotler (1997), Munger (2001), Towse (2010) all found that labor expenditures contribute to the continued low rewards in the dance field. A dancer's and teacher's wages are crucial for the success of a dance company or education organization. Throsby's data showed a decline in dancers' income over the years leading up to the recession, a time when most incomes were slowly rising. More specifically, large ballet companies—one of the most demanded professional dance forms—saw fluctuation in audience members between 70,000 and 115,000 ticket sales over the decade of the 1990's. With high input costs such as these, the constant demand fluctuation slows the industry's growth. Slow industry growth intensifies rivalry within organizations because any gains in sales by one organization happen at the



expense of its competition, rather than stimulating overall market growth. Smith (2003) predicted that earned income may fall as much as 30 percent for dance organizations as aftermath of the 2001 recession. Census data does not indicate a fall this drastic; however earned income has been on a steady decline of about one million dollars per year<sup>5</sup>.

### *Dance Companies versus Dance Education*

It is important to make the distinction between a dance company and a dance school because the two rarely overlap and provide different services to the public. By definition, a dance company is a group of artists who, with the support of technical and administrative staff and operational funding, create work—or performances—on a seasonal basis<sup>6</sup>. Kotler (1997) defines the majority of dance companies to be predominately distributed by nonprofit organizations that are managed by artistic professionals, governed by prosperous and influential trustees and supported by large funders. Dance schools—or studios—are predominately privately owned businesses for profit that offer dance education to children and adults as an extra-curricular activity. They have the potential to bridge the gap between dance schools and dance companies.

Kotler (1997) suggests that art requires viewers who want to participate in dance, not just “consume” it. Rather, some viewers are interested in learning and performing with the arts instead of only being an audience member. Although, he also found a National Endowment for the Arts study from 1988 that indicates most Americans have not had any form of arts education that would promote such participation. The National Education Association’s president, Dennis Van Roekel, believes that the arts are important, that they enrich lives and have always offered ways to learn and express ideas. Despite his opinions, Walker (2012) found the heightened budget cuts in public schooling leave schools focusing on reading and math. This has taken a

financial toll on the accessibility to arts instruction in the American school system. Kotler found that many performance companies have turned to education as a way to serve the community and market performances. They find it beneficial and important for young students to value art forms, as well as older audience members to encourage ticket sales because it increases the demand for the slowing industry. After school and community programs have been implemented to reach this goal. This is where the performance companies and education begin to intersect because they promote one another's businesses. While performance companies have begun to create their own education programs, new economic developments have led to a greater focus on the private sector and the marketplace, which has produced and increased emphasis on marketing, fundraising, profit corporations, and the commercialization of artistic enterprises.

Posey (2002) found that privately owned dance schools began in the 1800's for students who wanted to become performers. They were originally referred to as a social activity or a form of entertainment, but were never associated with formal education. In 1950, dance schools of the private sector—or dance studios for profit—evolved to have three basic types that still exist today: the serious ballet academy for aspiring professional dancers, local recreational schools with an annual recital, and schools that teach mainly modern dance. Posey found that in the past twenty years, dance has become more prevalent in higher education as a result of tremendous growth in private dance schools between 1950 and 2000 which stimulated the demand to pursue dance as a career path in college. With dance present in higher education, the field was finally achieving the educational status it lacked upon establishment in the 1800's. This research suggests that when dance is taught in the private sector, it serves as an integral and important component of the overall educational system. Posey questions where all the dance students

currently enrolled in higher education dance programs began, and determine their first exposure was likely in a private dance school at a very young age.

Both Posey (2002) and Kotler (1997) point out evidence of a disparity between nonprofit dance companies and private dance schools for profit. Kotler found that companies are generally well-respected within the industry because they practice dance as an art form. Dance schools sometimes lack this respect because they produce art for entertainment value, sponsored by profit seeking entrepreneurs distributed via the market. Entertainment value is defined to be a type of art that draws a large crowd and keeps them interested; artistic value is much more complicated and can be very abstract, but it is not created for the purpose of keeping an audience interested and engaged. Posey found that private dance schools often reflect the public image of dance—or competition based dancing solely for entertainment value. The author suggests that this public image is derived from the media depiction of competitive dance that is currently being displayed on numerous television shows such as the *Lifetime* series, *Dance Moms*. Despite this perceived animosity between studios and companies, or nonprofit and profit organizations, both researchers suggest that more communication between the two can enhance the dance industry altogether. More private dance education can lead to a larger interest in the nonprofit dance sector and stimulate the demand for ticket sales of company performances. Profits and nonprofits can achieve this heightened demand with more communication between one another, and will consequently begin to ease some of the tensions involving dance for artistic value and dance for entertainment and competitive value. As for the future of these sectors, the author suggests that nonprofit arts organizations continue to struggle for earned income and have begun to come up with creative new ways to obtain donated revenue. This has sparked the private sector to lobby against their competition. Kotler's research shows that the government debated an equalizer

which he predicted would most likely end up in taxes on earned income for nonprofit organizations. Nonprofit arts organizations are still exempt from corporate income taxes<sup>7</sup>. In general, Posey and Kotler suggest that there is a trend indicating that most dance companies are nonprofit, and dance schools are for profit. This trend does not apply to all organizations and it is important to recognize that there are exceptions that currently exist on the market.

### *Profit versus Nonprofit Organizations*

The performing arts industry is often separated into two sectors, organizations that are for profit and those that are not for profit. This is one of the main discrepancies that comes up when looking at the dance field, and is often one of the main differentiations between a dance school—that are for profit, and a dance company—that are not for profit. While they are both integral parts of the dance culture, it is important to distinguish the two for management, monetary, and tax purposes. Kotler (1997) found that nonprofit arts organizations were originally implemented to protect artists from government intervention such as corporate income tax. A nonprofit is defined to be an organization without an owner that could not divide or distribute the total earnings if the company were ever to go out of business. Additionally they are exempt from corporate income tax and there cannot be stockholders. Nonprofits also have a board made up of volunteers from the community who assist in making executive decisions for the company. Finally, nonprofit dance organizations are eligible for outside funding from government entities (Munger, 2001). Sciantarelli (2009) found that nonprofit dance companies rely on several sources of revenue including donations, government entities and earned income. Research on financial trends of nonprofit dance companies defines earned income to be direct ticket sale revenue and unearned income to be indirect funding from grants or donations (Smith, 2003).

Sciantarelli reported that nonprofits average 60% of their income from sales—or earned income—and the remaining 40% from grants and donations—or unearned income.

The main differences in dance organizations that are for profit include: owners that divide the revenues or debts, ineligibility for government funding, and corporate income tax requirements. Dance companies are often not for profit because they are more eligible for government grants, as they often are contributing back to the community in a variety of ways. Munger (2001) and Towse (2010) argue that despite the differences between profit and nonprofit dance corporations, the two share many similarities in management and expenditures. Nevertheless, Munger suggests that they both follow the same business trends. This is because with or without a sole proprietor, dance corporations try to avoid debt accumulation. Both profit and nonprofits provide an ephemeral supply of performances and/or classes that require overhead costs including rehearsal times and spaces, costumes, and labor. This study focuses only on the dance schools that are for profit. However, the non-profit literature with a focus on dance companies is not to be disregarded. As a result of the similarities between profit and non-profit organizations, literature on dance companies can be applicable to dance schools.

### *Typical Expense and Revenues*

The dance community is filled with many different outlets that each run uniquely with their own budgets and sources of incomes. These revenues and expenses vary from organization to organization. This literature covers the finances of mainly nonprofit dance companies and profit dance schools. Kotler (1997) found that dance organizations in general face three types of expenses: fixed, variable and marginal. Fixed costs include overhead expenses such as rent or mortgage and salaries for dancers, administrators, and/or teachers. These expenses are typically

the highest of the three. Variable costs are easily increased or reduced depending on the financial status of the corporation. Examples include costumes, transportation for tours and recitals, and production costs. The sum of fixed and variable costs is total cost. Kotler's research shows that total cost is the number that managers and board members consider when making budgeting decisions. Marginal cost in the performing arts industry is the additional cost in selling one more seat. In the dance school industry it would be the additional cost in adding one student to a class. Arts organizations are known to have very low marginal costs because the cost of adding an additional audience member or student is close to zero. In a dance school, the addition of adding one more student to a class generates more tuition revenue while the instructor is still paid the same marginal cost. Whether the researcher classifies their costs to be fixed or variable, Throsby (1996) Baumol and Bowen (1966) and Munger (2001) also found that operating budgets are most strained by wages. Fortunately, Towse's model showed that expanding an arts organization will lead to lower average total costs. In a dance studio setting, average total costs would be the sum of fixed and variable costs divided by the number of classes offered in a season.

Smith (2003) and Baumol and Bowen (1966) determined that ticket sales are the largest source of earned income for dance companies. Towse (2010) found factors that influence ticket prices include: the cost of supplying them, median income of the audience, and size and layout of the venue. If priced correctly, high fixed and variable costs—such as costumes and production features— can be spread over a relatively small audience. Audiences can be segmented by location of theatre, presales, time of performance and bulk sales. A not often measured factor of the production is quality of the work itself, the technical factors in the production, the benefits to audiences and to the art form itself. Towse measures this by using press reviews of the

performance. This can be paralleled in dance education. Schools gain revenue from their annual recital(s) at the end of the year; however they also bring in monthly tuition revenue for classes taught. Towse's model indicates that business expansion leads to lower total costs. It can then be assumed that offering more classes combined with an increased demand brings in more revenue for private dance studios.

### *Generating a Large Clientele*

In order to attract the most consumers, leaders in the field have outlined different management decisions—such as marketing campaigns, administrative techniques and educational programs—that have been successful in their studies. Posey (2002) found that private dance studios' quality of teaching is reminiscent of the projected image of dance in the media: competitive and technical. She suggests that artistry, creativity, aesthetics and education often come second to the competitive image because competition generates more sales. Whether all private schools follow this trend or not, it is up to the public to decide which studios will succeed. The program offered at the school affects enrollment. The greatest number of dance schools in the United States offer classes in tap, jazz, lyrical dance and ballet, participate in competitions and offer performance opportunities in recitals. These are the schools that have the greatest opportunity to succeed because they attract a large enrollment, sometimes 500-1,000 students. Smaller dance schools include those that have a strict ballet curriculum where ballet is their main focus, and even smaller is schools that offer only modern and creative dance. While the quality of education is determined by the consumer, Posey found that competitive dance attracts the most customers.

Dance organizations require administrative labor, advertising and future planning. Kotler (1997) declares there is a great need for the development of capable and experienced arts managers as well as for specialists in audience development and fundraising. More qualified and successful managers will result in more dance performing companies, which stimulates growth in the field. He found that it is no longer enough for managers to know operational skills such as accounting and database management. Instead, subtler and more sophisticated communication and negotiating skills—such as labor contracts, workers' compensation laws, workplace safety codes and insurance policies—are critical for managing and marketing any arts organization regardless of whether or not it is profit or nonprofit. He found that advertising on the Internet is a low cost way to convey important consumer information. It has the ability to reach the widest span of potential audiences which is more than any other type of advertisement campaign. He also encourages discounts for tickets or tuition with careful consideration to the popularity and prosperity to the organization. Kotler has found both of these techniques successful in generating a large clientele. Increasing the demand for any business is ideal; however the strongest determinant for clients in the dance industry is not often quantifiable. Quality of teaching and performance is generally an idiosyncratic measurement that is difficult to account for in an econometric study. Towse (2010) measures this with public reviews of performances and classes in order to look at survey based data to measure quality. He concluded that the surveys did not provide enough information to determine whether or not the elasticity of demand for the arts is greater or less than one.

Since the establishment of the National Endowment for the Arts, a time where dance companies began receiving never before seen funding, the dance industry as a whole grew 1,000% (Sciantarelli, 2009). This again shows that improvement in one facet of the performing



arts can fuel the expansion of the entire field. Kotler (1997) determined that the continuous growth of the dance field has given way to the need for austerity, consolidation and careful planning. Smith (2003) declares that businesses can endure this growth and competition by adopting more efficient business techniques including cutting costs and implementing new measures to increase demand. For example, new advertising and marketing campaigns are predicted for this field in the future. Additionally, Kotler concluded that managers need to gather as much competitive information as possible in order to determine their best strategies. Building awareness to the benefits of dance is the number one task for marketing in an arts organization. Then they are to build knowledge on specifics while targeting the correct audience.

## **Theoretical Model**

This study aims to determine what management decisions affect the enrollment in a private dance school. Literature relating to small businesses was utilized to estimate the theoretical model. Few studies have been done on private dance schools specifically. Dance schools fall under the wide umbrella that is “privately owned small businesses”—a field in which there is ample research. The results found within this category are useful in estimating the signs of the coefficients in this model. The following linear model is hypothesized based on prior studies in both the dance industry and the applicable small business literature.

$$\text{Enrollment} = \beta_0 - \beta_1 \text{Tuition} + \beta_2 \text{CompetitionTeam} + \beta_3 \text{Teachers} + \beta_4 \text{Income} - \beta_5 \text{Tickets} + \beta_6 \text{Classes} - \beta_7 \text{Eccentric} + \beta_8 \text{Prestigious} + \beta_9 \text{NJ} + \beta_{10} \text{DE} + \epsilon$$

Tuition is the amount parents pay for their children to take one dance class per month. The law of demand suggests that this variable has an expected negative coefficient. Theory suggests that parents will decide where to enroll in classes based on the monthly cost of tuition.

However, Posey's study (2002) shows that dance classes are relatively inelastic, meaning they are insensitive to price or income fluctuation. This may be a result of students that are already enrolled in the school, and do not drop out due to a change in price.

"Competition Team" is a dummy variable stating whether or not the dance school participates in the competition circuit. This is where students—in addition to their regular weekly classes—will learn choreographed routines that are presented in front of a panel of judges. Those judges will rank the performance based on a series of criterion that is calculated as a numerical value. Dance routines are categorized based on age, group size and style. The "score" is then compared among the category and the judges present an overall ranking of which dances came in first, second, third etc. Dance schools have incentive to implement a competition team because it is a means of advertisement and also gets students into more classes. Posey (2002) found that competitive schools generate the largest enrollment. The sign is expected to be positive because of Posey's research and dance's portrayal in the media right now. Shows like *Dance Moms* describe dance competitions to be quite a spectacle full of talented dancers and exciting drama. Because this media is likely influencing young dancers, it is hypothesized that they will choose to enroll in schools that have competition teams.

The "teachers" variable includes information regarding the number of dance instructors that are employed at each school. Hurst (2011) conducted an empirical study about the unique qualities of small business entrepreneurs. His data encompasses data for businesses that have between one and nineteen employees. His data suggests that businesses with fewer than 20 employees do not differ much when compared to businesses with 99+ employees. Murz (1995) completed a more broad study that focused on what business decisions affected growth in sales using a sample of 370 firms. He found that as number of employees increased, so did sales

volume. Hurst's study shows that Murz's research can be applicable to small firms with 1-20 employees—which also happens to be the range of “teachers” in this dataset. When combining the findings of these two researchers, one can hypothesize that “teachers” will have a positive coefficient.

The “income” variable encompasses both the location of the dance school and wealth in that area. Katona (1952) looked at a sample of small businesses in Michigan to determine why they make different business decisions. In a series of interviews, he gathered that not one business in the sample felt that they were in the “right” setting, and were aware of the advantages and disadvantages of their location. However, moving is not perceived to be cost effective and they therefore stay where they are. The “best” location in this study is classified as being in close proximity to the materials and supplies needed such as performance venues and labor population, close proximity to the market, near affordable labor sources, and near favorable transportation facilities. Their data suggests that the majority of business owners would not relocate to a different area to avoid leaving their market. In fact, 51% of entrepreneurs chose their original location based on personal preference; however they stay because of the proximity to their accumulated markets. Based on this literature, estimating this variable is somewhat ambiguous. It could be assumed that higher median household income means more disposable income for recreational activities such as dance classes. Katona could also argue otherwise and state that the business could be stuck in their location because it is not cost effective to move. This could be hindering potential increases in enrollment.

“Tickets” is a variable that outlines the price of admission to the annual recital at the end of the year. The expected sign of the coefficient is relatively ambiguous. It could be argued that the law of demand suggests that it will be negative. However this variable does not hold the same

value as “tuition”. “Tickets” is hypothesized to be more of an annoyance cost than a deciding factor for enrollment. It is possible that parents do not even know about the ticket price until the end of the year when it is time to purchase them for the annual recital. It is unclear as to whether or not this variable will be positive or negative. The law of demand suggests that this will have an expected negative coefficient but is not necessarily supported by theory.

The “classes” variable is the amount of dance classes that are offered at each studio over the period of a week. Young (1985) conducted a study on a wide range of firms over the period of 1948-1980 to see how output growth, supply and demand impact one another in different industries. He found that a growing industry facilitates demand specifically in the service industry. Output growth of 3.6% in this industry creates an average increase in demand of 62.02% annually. It can then be assumed that the “classes” variable will be positive. More classes should facilitate demand and therefore enrollment in the school.

The “prestigious” and “eccentric” variables are included in the model to represent how the school’s name impacts enrollment. “Prestigious” is defined to be a name that appears to provide a high quality education. For example, any school that is considered a “dance academy” or a “conservatory”. “Eccentric” schools have unusual names that are not often seen anywhere else in the dance school industry. Meyers-Levy (1989) conducted a study using 100 women to test the effectiveness of brand names on recognition and ability to be recalled. They separated the sample of brands into two categories: brand names with high frequency words, and names with low frequency words. High frequency words are “normal”, easily understood words that are a part of everyday vocabulary. Low frequency words are used less often and not easily defined. Her study found that the brand names with high frequency words were recalled and recognized more often than low frequency brands. This can be applied to the “prestigious” and “eccentric”

variables in this model. “Prestigious” names are the standard, high frequency words and the variable is therefore expected to have a positive coefficient based on Meyers-Levy’s study. If high frequency words generate more recognition, prospective dance parents may choose these schools over others solely because of the name. Consequently, “eccentric” names that have low frequency words are expected to have the opposite effect. Finally, the dummy variables “NJ” and “DE” are included to classify which state the school is located. Location is hypothesized to be a large factor for any type of industry. Each provides a different market for purchase. It is unclear what to expect from these variables, however it is thought that their inclusion will provide insight into what types of differences the state brings to enrollment.

## **Data**

Private dance schools are the focus because they are one of the driving factors behind demand for the performing arts and dance industries. They spark the initial interest in dance to children and families that enroll. Posey (2002) found that enrollment is a key factor when determining the popularity or success of a dance school, which is the motivation behind this dependent variable. Finding the variables that affect enrollment will provide insight as to what initially attract people to dance. The data is specific to private dance schools in the tri-state area, explicitly New Jersey, Delaware and Eastern Pennsylvania. Each dance school has a website containing information for the public. Much of this information was recorded from the websites for independent variables. However, few websites provide all of the independent variables used in this study. For variables that were not present on the website, information was provided via phone interview. The sample size for this study is 100 dance schools. Table 2 defines all of the variables in the dataset.

Table 1: Variables

Variable	Definition
Enrollment (Dependent Variable)	Individual number of students enrolled in the dance school as of the summer 2014
Tuition	Monthly amount paid for one class per week
Competition Team	Dummy variable that determines whether or not the school has a separate group of students who travel and compete in regional dance competitions (1=competition team; 0=no competition team)
Teachers	Number of dance instructors teaching weekly classes at the dance school
Income	Dummy variable classifying the school's location as either above (1) or below (0) the state's median household income
Ticket Prices	Amount charged to be an audience member at the annual recital
Classes	Amount of classes offered weekly at the dance school in the Fall-Spring session (typically from the beginning of September to mid-June)
Eccentric Name	Dummy variable classifying the studio name as eccentric (1) or not (0) <i>Eccentric meaning a name that is not mundane, but rather is intriguing and atypical.</i>
Prestigious Name	Dummy variable classifying the studio name as prestigious (0) or not (1) <i>Prestigious meaning a name that exemplifies the esteemed reputation of the school. Dance "academies" are an example of this.</i>
NJ	Dummy variable classifying whether the school is in New Jersey (1) or not (0)
DE	Dummy variable classifying whether the school is in Delaware (1) or not (0)

The variables above were chosen due to their relevance in dance schools according to Posey (2002) and observations on the websites. These are question categories that inquiring students may typically ask prior to enrollment.

Table 3 contains a series of descriptive statistics for each variable. This enables comparison among the variables while also providing general information about each category.

*Table 2: Descriptive Statistics*

<b>Variable</b>	<b>Mean</b>	<b>Median</b>	<b>Standard Deviation<sup>8</sup></b>	<b>Sample Variance<sup>9</sup></b>	<b>Skewness<sup>10</sup></b>	<b>Range<sup>11</sup></b>	<b>Max</b>	<b>Min</b>
<b>Enrollment</b>	242.75	200	155.60	24212.225	1.57	670	750	80
<b>Tuition</b>	55.61	55	10.93	119.42	1.73	74	110	36
<b>Competition Team</b>	0.57	1	0.50	0.25	-.29	-	-	-
<b>Teachers</b>	7.95	7	4.21	17.70	0.85	19	20	1
<b>Median Household Income</b>	59586.85	55026.5	22300.16	497297260 .2	0.81	85956	1131 62	27206
<b>Ticket Prices</b>	17.1975	16	6.09	37.12	-0.43	35	0	35
<b>Classes</b>	49.5	42	28.34	803.18	1.98	192	200	8
<b>Eccentric</b>	0.31	0	0.46	0.22	0.84	-	-	-
<b>Prestigious</b>	0.73	1	0.42	0.18	1.30	-	-	-

Enrollment shows a high standard deviation and range indicating a wide dispersion of students in attendance, as does the median household income variable. Classes offered is another variable with a large dispersion because classes offered depends on the popularity of the school. When quantity demanded increases, quantity supplied—in this case classes offered—must also increase to keep up with the clientele. Ticket prices have a minimum of zero. This is because

some studios opt to make their end-of –the-year recitals free of charge. These schools usually put on small showcases at the studio, rather than at a professional venue.

Although much care and consideration was put into this data collection, a few caveats must be noted. The data for this research is self-selected, the schools were chosen at random and the variables were collected via phone and website. Munger (2001) declares that if one were to ask how many dancers are in a “typical dance company” that it would be similar to averaging football, basketball and soccer scores to arrive at the score of a “typical ballgame”. The arithmetic and data might be rigorously correct, but the result would not illuminate anything that was actually relevant or useful. The author points out the variety of management in the dance field. Similarly, private dance schools can operate very differently from location to location, and it is important to note possible discrepancies within the records. First, the data was primarily collected off of the websites available to the public. It has not been confirmed that all of this information is up to date or correct. Additionally, when schools were called to provide information lacking on the websites, it is possible that the answers are estimated and not completely factual. Schools often times post their fall schedule online with the disclaimer “classes may be cancelled at any time due to lack of enrollment”. Therefore, the data is collected based on the studio’s prediction of how many classes will run with full enrollment. Additionally, tuition prices can fluctuate depending on the level of placement for the student. In these cases, all of the tuition prices were averaged to determine an overall price for all students. Finally, median household income is based on the location of the studio using census data, when data was unavailable, income was recorded from the nearest available town or city.

Despite these possible discrepancies within the dataset, it is important to note that this information has the ability to provide a lot of insight into dance education in the private sector.



Large ranges and standard deviations among the variables are examples of varying management decisions in dance schools. It is clear that studio owners do not all follow the same paths. Many base their decisions in deep rooted philosophies about dance education; others make choices solely based on income. While one would assume that most fall somewhere in between this spectrum, the data shows that dance studio owners have not agreed on one way of running their businesses. This study aims to determine what decisions are the “right” ones in terms of enrollment, and a wide array of diverse observations is an objective way of doing so.

### **Results:**

Using linear regressions and a stepwise procedure, results were gathered to determine which independent variables most influenced enrollment. The first model was run using the entire sample of 100 data points. This is the only model that encompassed all schools. The remaining two models were split based on the dummy variable “competition”. Model 2 includes schools that participate in competitions, whereas Model 3 includes only schools that abstain from competitions. This split is based on anecdotal and literature based evidence that hoped to improve the specification of the model. Table 4 outlines the empirical findings of each model.

Table 3: Results

	Model 1 DV: Enrollment	Model 2 DV: Enrollment	Model 3 DV: Enrollment
Intercept	167.62679** (76.35644)	175.15385 (114.64938)	247.80167** (90.16001)
Tuition	-1.69008 (1.20970)	-2.22248 (2.14547)	-3.02104** (1.36659)
Teachers	13.56951*** (3.41044)	2.44699 (4.81891)	26.92678*** (4.54371)
CompTeam	-34.64463 (26.07530)	-- --	-- --
Tickets	-2.93190 (2.03307)	-3.62343 (2.69938)	-6.67477** (2.80634)
Classes	2.93190*** (0.50919)	2.95835*** (0.92023)	1.58966*** (0.54691)
Eccentric	-1.25179 (28.22827)	32.52774 (35.00465)	113.66673** (43.66838)
Prestigious	17.00492 (31.18828)	12.86774 (42.95904)	48.19452 (40.69604)
NJ	-2.87638 (27.69280)	-20.98395 (33.75153)	17.46364 (38.81805)
DE	-40.06918 (42.83447)	-69.7324 (62.74225)	50.81425 (53.49797)
Income	0.00032 0.00059	0.00123 (0.0008574)	-- --
	N: 100	N: 57	N: 43
	Adj R square: .41	Adj R square:.29	Adj R square: .65

\*Variable is statistically significant at a level of .10

\*Variable is statistically significant at a level of .05

\*Variable is statistically significant at a level of .01

Model 1 had few statistically significant variables and an adjusted R Square of .41 as illustrated in table 4. “Teachers” and “classes” were the only independent variables to show statistically significant results. These two variables exemplify variety in a dance school setting which explains their positive coefficients. The adjusted R square of .41 indicates that only 41% of the variation in the dependent variable of enrollment is explained by the independent

variables. In order to improve the specification, various combinations of independent variables were attempted as well as different dependent variables. The “Median Household Income” variable showed continuous insignificance. Theory suggested that dance classes are relatively insensitive to fluctuation in income, therefore this variable was eliminated to determine whether or not it was influencing the specification of the model. There was no evidence of a problem with this variable in relationship with the entire model. A logistic model with a dummy variable of high enrollment versus low enrollment provided little useful information with no statistically significant variables. Additionally, a dependent variable of tuition was included. The only statistically significant variable in this model was Delaware, which cannot be supported by literature or theory.

After thoughtful consideration, a distinction was made between competition and non-competition schools. Model 1 included a dummy variable classifying competition schools with a 1 and non-competition schools with a 0. The difference between those two categories should be noted with two separate models for a variety of hypothesized reasons. Based on personal and anecdotal experiences in the industry, non-competition schools tend to focus on the artistry of dance as an art form rather than a competitive drive for performance training. All dance schools have unique management techniques that generate enrollment, however the differences between competition schools and non-competition schools is much larger in the categories of advertising, management, expenses, revenues and teaching. It was concluded that when the two are lumped into one category it caused problems within the model.

Posey’s literature (2002) suggests that competition schools generate the highest enrollment. However, model 2 only includes competition schools and produced results that were equally as unexpected as the full observation model. The adjusted R square was .29 and

“classes” is the only statistically significant variable. The monetary variables, tuition, tickets and income are all insignificant. It is possible that parents do not put thought into the financial aspect of a competition school because the payments are viewed as an investment rather than an expense. Children that attend competition schools spend an exhausting amount of hours per week preparing and performing. They need an investment based attitude from their parents financially could explain the insignificant monetary variables of this particular model.

The linear model that includes non-competition schools provided more insight to enrollment motivators than the previous models. The variables “tickets” and “tuition” have negative coefficients and are statistically significant, which follows the law of demand. Parents that are sending their children to dance class as an extracurricular activity could be more concerned with the monetary aspect as opposed to the competition schools. Posey’s literature suggests that students in competition schools take more classes per week on average as a result of their dedication to the school’s team. Recreational students therefore do not enroll in as many classes per week. It is possible that with fewer classes, parents have the ability to keep track of their financial output as an expense.

The variable “teachers” is also statistically significant in this model with a positive coefficient. Parents often make their judgements about the school based on their experiences with their child’s teacher. It is possible that the more teachers hired on staff indicate a larger possibility of a positive experience. Additionally, schools that hire a larger number of teachers could be more concerned with quality and variability in instruction. The theoretical model suggests that the more teachers on staff will increase enrollment, which coincides with this positive and statistically significant coefficient.

The “eccentric” variable is statistically significant with a negative coefficient. Posey (2002) suggests that non-competition schools focus more on the artistic value of dance. It can be inferred that schools with an eccentric name dissuade students from enrolling. Examples of eccentric names include “Tip Tap Toe School of Dance” and “Fancy Feet Dance Studio.” Prospective students will likely look for a non-eccentric name that does not compromise the reputation they will have as a dancer.

In order to determine the level of impact of each statistically significant variable, a stepwise procedure was utilized. A stepwise procedure takes the initial results one step farther to look at the importance of each variable. Beginning with no variables, the addition of one variable at a time is tested based on its impact. This procedure is repeated until no more variables influence the dependent variable. This econometric test provides a ranking for which variables have the most influence in order from largest to smallest. In addition to the ranking, a partial R-square shows the exact value that the variable has on the model in comparison to the others. The results are illustrated in table 5.

*Table 4: Stepwise Procedure*

*Summary of Stepwise Selection*

<b>Step</b>	<b>Variable</b>	<b>Partial R-Square</b>	<b>Model R-Square</b>	<b>Pr &gt; F</b>
1	Teachers	0.5198	0.5198	<.0001
2	Classes	0.0837	0.6035	0.0059
3	Eccentric	0.0317	0.6351	0.0735
4	Tickets	0.0351	0.6702	0.0514
5	Tuition	0.0282	0.6984	0.0708

While the “teachers” variable should provide insight to the variation in the dependent variable, the stepwise suggests that it accounts for 51.98%. This result is problematic due to its large impact and should be noted as a caveat within the model. This model looks at only the amount of teachers within a given school. If quality were a measurable variable for this study, it would be expected to have the high impact that the stepwise illustrates. However a simple quantitative measure should not account for over 50% of the deviation of the dependent variable. Theory suggests that quality of instruction is a driving force for enrollment in a privately owned dance school. While this model includes their presence, it does not account for the skills and perception of each. The number of instructors can only comment on the variability of output within a school, but not customer satisfaction or advertising effectiveness.

The tuition variable, in addition to monetary variables in general showed contrasting results to the theoretical model and literature review. Tuition and tickets are the least impactful

of the statistically significant variables, and income showed such little results in models 1 and 2 that it was left out of the third model due to perpetual insignificance. These financial variables did not follow theoretical expectations. The results suggest that decisions in management and output are more influential than the investments made.

### **Conclusions and Future Work:**

Literature and anecdotal evidence suggest that various independent variables will influence enrollment each in a unique fashion. The empirical model shows that teachers, classes, eccentric, tickets and tuition are the main variables to consider in non-competition schools. Due to a wide range of management techniques and output, the sample must be segregated according to the competition variable. This refines the dataset and gives more opportunity for investigative results. However, Posey's literature (2002) conflicts with the results of this study. The sample that includes non-competition schools provides the highest R-square and parallels the most theoretical predictions than the first two models.

The law of demand in combination with much literature that goes beyond the scope of this study states that tuition has a negative impact on enrollment in a school setting regardless of the industry. The private dance school sector shows unique results with statistically insignificant coefficients in the first two models, and the lowest stepwise ranking in the final model. Classes offered performed as expected which is consistent with theoretical expectations.

The "teachers" variable has potential to be expanded upon with the inclusion of a qualitative analysis. A ranking system conducted with surveys is a possible method to achieve such insight. Similarly, an additional variable that assesses performance of the school is a qualitative aspect that could provide a supplementary perspective on enrollment. Furthermore, a

large fraction of “success” in a private dance school from an owners’ perspective is profit. Due to restrictions in the private sector that limit financial data, such information is unavailable. These limitations are likely a cause for scarce research previously reported on this industry. Access to such information would give future researchers to conduct a financially analytic and qualitative study.

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<sup>1</sup> Dancer median pay from the Bureau of Labor Statistics; intern hourly wage from the 2012 Guide to Compensation for Interns survey

<sup>2</sup> <http://neatoday.org/2012/04/05/the-good-and-bad-news-about-arts-education-in-u-s-schools/>

<sup>3</sup> <http://nces.ed.gov/pubs2012/2012014rev.pdf>

<sup>4</sup> [http://www.bls.gov/data/inflation\\_calculator.htm](http://www.bls.gov/data/inflation_calculator.htm)

<sup>5</sup> <http://www.census.gov/prod/2011pubs/12statab/arts.pdf>

<sup>6</sup> This definition is based on the Glossary of Dance and Theatre Terms published by the National Arts Centre  
<http://www.artsalive.ca/en/dan/dance101/glossary.asp>

<sup>7</sup> <http://dor.wa.gov/docs/pubs/industspecific/nonprofit.pdf>

<sup>8</sup> Standard deviation measures the variety in the dataset. If observations vary greatly from the mean, the standard deviation is considered to be large.

<sup>9</sup> Sample variance also measures the variety in the dataset, but is expressed in squared units. The standard deviation is the square root of the variance.

<sup>10</sup> Skewness measures whether or not the data is skewed to the right (positive number) or to the left (negative number) of the mean.

<sup>11</sup> The range is the difference between the maximum and minimum values in the dataset.